

### REMARKS

As mentioned in the Office Action mailed January 29, 2004, the above amendment corrects the misnumbering and claims 47-48 and indicates that claims 46 and 48 are new and withdrawn.

The Examiner has subjected this application to restriction under 35 U.S.C. 121. The Examiner has formed two groups of claims, Group I directed to claims 1-26 and 35-42 and drawn to a method, and Group II directed to claims 27-34 and drawn to a product. The Examiner has asserted that these groups of claims represent distinct inventions and may properly be restricted. Applicants hereby confirm their provisional election of Group II, directed to claims 27-34 for examination. However, the restriction requirement has been traversed and request is hereby made for reconsideration. It should be noted, the Commissioner may statutorily require the election of inventions "If two or more independent and distinct inventions are claimed in one application." In the instant case the Examiner is alleging that the inventions of groups one and two are distinct, although absolutely no showing of such distinctness has been made.

The Examiner's attention is directed to 37 C.F.R. 1.141(b) where allegedly different classes of inventions may be included and examined in a single application provided they are so linked as to form a single inventive concept. Please note that claims for a product are specifically authorized for examination together with claims for one process specially adapted for the use of that product. This is exactly the type of case for which the rule was promulgated, i.e., to avoid burdensome and unnecessary restrictions. It is also asserted that the requirement to restrict the present application would be an unnecessary burden upon the Applicants and the Examiner's failure to follow the mandates of the statute and regulation would be a denial of due process.

In addition, the same examiner has already examined all of the withdrawn claims in the corresponding PCT application, namely PCT/US02/07430, and therefore there would be no additional burden for the rejoining of the withdrawn claims. For these reasons it is respectfully urged that the restriction requirement should be rescinded and that the method claims should be rejoined.

Claims 27-8, 31-34 and 44 stand rejected under 35 U.S.C. 112 for the reasons stated in the last Office Action. Claim 27 has been amended as suggested by the examiner and therefore if is submitted that this ground of rejection should be withdrawn.

Claims 21, 26, 33 and 36 have been amended to conform the claims. "Polymeric" has been changed to "polyimide" throughout the claims. Claims 1, 3, 23, 25 and 35 remove the word "second".

Additionally, the claims have been amended to require that the a first polyimide film be "laminated" to the first etched surface of the polyimide substrate, rather than just being "attached". Please notice that this is not merely a process limitation, but a structural limitation.

Applicants clarify that in claim 44, the polyimide is in the solvent solution rather than a polyimide precursor such as polyamic acid. It is submitted that with respect to claim 44, the resulting printed circuit board composite of claim 27 is further limited since it requires that the polyimide film has been applied to the metal foil by coating a solvent solution of the polyimide onto the foil and drying wherein the solution has a viscosity ranging from about 5,000 to about 35,000 centipoise. When the solution has been applied at this viscosity range, preferred film properties (e.g. film strength, uniformity, etc.) are attained.

The examiner has rejected claims 27, 29-34 under 35 U.S.C. 102 over Takeuchi et al. Applicants respectfully assert that this ground of rejection is not well taken.

The invention relates to a flexible printed circuit board having improved interlayer adhesion and excellent thermal performance. The claims have been amended to claims a printed circuit board composite which includes a *polyimide* substrate having a first etched surface, a first *polyimide* film laminated to the first etched surface, and a layer of a metal foil attached to an opposite side of the first polymeric film, and wherein the resulting printed circuit board has a peel strength of at least 4 lbs./inch. *The claims have been amended to require that the polyimide film contains from about 5% to about 80% by weight of the film of a filler.* This is also not shown in the art.

Takeuchi et al. teaches a polyimide substrate which is subjected to a surface modification treatment; a siloxane-modified polyamideimide resin adhesive layer attached to the polyimide substrate; and a copper foil attached to the other side of the adhesive layer. It is urged that Takeuchi et al. teaches the formation of a different end product from the present invention, using different components than are taught by the present invention. Thus, it is submitted that the present invention is patentably distinct from Takeuchi et al. It is therefore respectfully urged that the 35 U.S.C. 102 rejection should be withdrawn.

The examiner has rejected claims 27-34 under 35 U.S.C. 102 over Suzuki et al. Applicants respectfully assert that this ground of rejection has been overcome by the instant amendment. The claims have been amended to require that a first polyimide film has been laminated to the first etched surface of the substrate. This is very different from the structure of Suzuki, et al which requires that their polyimide film be coated onto their adhesion promoted polyimide substrate. This is not merely a process limitation, but rather a structural limitation. Applicants

overall process does coat their polyimide onto a metal foil, but the attachment of their polyimide film onto their adhesion promoted polyimide substrate is by lamination and not by a liquid coating application. It is therefore submitted that these features of the present invention renders the invention patentably distinct from Suzuki et al. It is therefore respectfully urged that the 35 U.S.C. 102 rejection has been overcome.

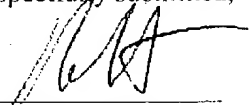
The examiner is reminded that an Information Disclosure Statement was mailed by Applicants on September 2, 2003 to complete this record. The only prior art cited was a reference cited in the corresponding PCT application.

The undersigned respectfully requests re-examination of this application and believes it is now in condition for allowance. Such action is requested. If the examiner believes there is any matter which prevents allowance of the present application, it is requested that the undersigned be contacted to arrange for an interview which may expedite prosecution.

The required fees were submitted together with the submission filed on December 1, 2003. If the Commissioner determines that any additional fees are required, he is authorized to charge such additional fees under 37 C.F.R. 1.16 and 1.17 which may be required by this paper, or credit any overpayment, to Deposit Account

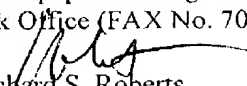
No.18-1589.

Respectfully submitted,



Richard S. Roberts  
Reg. No. 27,941  
P.O. Box 484  
Princeton, New Jersey 08542  
(609) 921-3500  
Date: March 23, 2004

I hereby certify that this paper is being facsimile transmitted to the United States  
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Richard S. Roberts  
Reg. No. 27,941